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Gln Thr Arg Ser Gly Pro Pro Ala Ser Ser Thr Ala Thr Tyr Gln Ser
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```

```
Ser Asn Val Thr Val Gln Thr Gln Gln Pro Trp Ser Phe Gln Glu Ala
                165                 170                 175

Thr Lys Gln Asp Asn Phe Ser Ser Gly Lys Gly Met Met Lys Thr Glu
            180                 185                 190

Asn Ser Ser Ser Met Gln Ser Phe Ser Pro Glu Ile Ala Ser Val Gln
        195                 200                 205

Thr Asn His Ser Asn Gly Phe Gln Ser Asp Tyr Gly Asn Tyr Pro Pro
    210                 215                 220

Gln Ser Gln Thr Leu Ser Arg Arg Ser Asp Asp Gly Tyr Asn Trp Arg
225                 230                 235                 240

Lys Tyr Gly Gln Lys Gln Val Lys Gly Ser Glu Asn Pro Arg Ser Tyr
                245                 250                 255

Tyr Lys Cys Thr Tyr Pro Asn Cys Pro Thr Lys Lys Lys Val Glu Arg
            260                 265                 270

Ser Leu Asp Gly Gln Ile Thr Glu Ile Val Tyr Lys Gly Thr His Asn
        275                 280                 285

His Pro Lys Pro Gln Asn Thr Arg Arg Asn Ser Ser Asn Ser Ser Ser
    290                 295                 300

Leu Ala Ile Pro His Ser Asn Ser Ile Arg Thr Glu Ile Pro Asp Gln
305                 310                 315                 320

Ser Tyr Ala Thr His Gly Ser Gly Gln Met Asp Ser Ala Ala Thr Pro
                325                 330                 335

Glu Asn Ser Ser Ile Ser Ile Gly Asp Asp Asp Phe Glu Gln Ser Ser
            340                 345                 350

Gln Lys Cys Lys Ser Gly Gly Asp Glu Tyr Asp Glu Asp Glu Pro Asp
        355                 360                 365

Ala Lys Arg Trp Lys Ile Glu Gly Glu Asn Glu Gly Met Ser Ala Pro
    370                 375                 380

Gly Ser Arg Thr Val Arg Glu Pro Arg Val Val Val Gln Thr Thr Ser
385                 390                 395                 400

Asp Ile Asp Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln
                405                 410                 415

Lys Val Val Lys Gly Asn Pro Asn Pro Arg Ser Tyr Tyr Lys Cys Thr
            420                 425                 430

His Pro Gly Cys Pro Val Arg Lys His Val Glu Arg Ala Ser His Asp
        435                 440                 445

Leu Arg Ala Val Ile Thr Thr Tyr Glu Gly Lys His Asn His Asp Val
    450                 455                 460

Pro Ala Ala Arg Gly Ser Gly Ser His Ser Val Asn Arg Pro Met Pro
465                 470                 475                 480
```

```
Asn Asn Ala Ser Asn His Thr Asn Thr Ala Ala Thr Ser Val Arg Leu
                485                 490                 495

Leu Pro Val Ile His Gln Ser Asp Asn Ser Leu Gln Asn Gln Arg Ser
            500                 505                 510

Gln Ala Pro Pro Glu Gly Gln Ser Pro Phe Thr Leu Glu Met Leu Gln
        515                 520                 525

Ser Pro Gly Ser Phe Gly Phe Ser Gly Phe Gly Asn Pro Met Gln Ser
    530                 535                 540

Tyr Val Asn Gln Gln Gln Leu Ser Asp Asn Val Phe Ser Ser Arg Thr
545                 550                 555                 560

Lys Glu Glu Pro Arg Asp Asp Met Phe Leu Glu Ser Leu Leu Cys
                565                 570                 575
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<210> 11
<211> 2158
<212> DNA
<213> Triticum aestivum

<400> 11

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ccggcgcggg cgcgaggtac aaggccatgt ccccggcgcg gctgccgatc tcgcgcgagc  180
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<211> 619
<212> PRT
<213> Triticum aestivum

<400> 12
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Asp Arg Arg Val Ala Ala Leu Ala Gly Ala Gly Ala Arg Tyr Lys Ala
35 40 45

Met Ser Pro Ala Arg Leu Pro Ile Ser Arg Glu Pro Cys Leu Thr Ile
50 55 60

Pro Ala Gly Phe Ser Pro Ser Ala Leu Leu Asp Ser Pro Val Leu Leu
65 70 75 80

Thr Asn Phe Lys Val Glu Pro Ser Pro Thr Thr Gly Ser Leu Ser Met
85 90 95

Ala Ala Ile Met His Lys Ser Ala His Pro Asp Ile Leu Pro Ser Pro
100 105 110

Arg Asp Lys Ser Ile Arg Ala His Glu Asp Gly Gly Ser Arg Asp Phe
115 120 125

Glu Phe Lys Pro His Leu Asn Ser Ser Ser Gln Ser Leu Ala Pro Ala
130 135 140

Met Ser Asp Leu Lys Lys His Glu His Ser Met Gln Asn Gln Ser Met
145 150 155 160

Asn Pro Ser Ser Ser Ser Ser Asn Met Val Asn Glu Asn Arg Pro Pro
165 170 175

Cys Ser Arg Glu Ser Ser Leu Thr Val Asn Val Ser Ala Pro Asn Gln
180 185 190

Pro Val Gly Met Val Gly Leu Thr Asp Asn Met Pro Ala Glu Val Gly
195 200 205

Thr Ser Glu Pro Gln Gln Met Asn Ser Ser Asp Asn Ala Met Gln Glu
210 215 220

Pro Gln Ser Glu Asn Val Ala Asp Lys Ser Ala Asp Asp Gly Tyr Asn
225 230 235 240

Trp Arg Lys Tyr Gly Gln Lys His Val Lys Gly Ser Glu Asn Pro Arg
245 250 255

Ser Tyr Tyr Lys Cys Thr His Pro Asn Cys Glu Val Lys Lys Leu Leu
260 265 270

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Glu Arg Ala Val Asp Gly Leu Ile Thr Glu Val Val Tyr Lys Gly Arg
        275                 280                 285

His Asn His Pro Lys Pro Gln Pro Asn Arg Arg Leu Ala Gly Gly Ala
    290                 295                 300

Val Pro Ser Asn Gln Gly Glu Glu Arg Tyr Asp Gly Ala Ala Ala Ala
305                 310                 315                 320

Asp Asp Lys Ser Ser Asn Ala Leu Ser Asn Leu Ala Asn Pro Val Asn
                325                 330                 335

Ser Pro Gly Met Val Glu Pro Val Pro Val Ser Val Ser Asp Asp Asp
            340                 345                 350

Ile Asp Ala Gly Gly Gly Arg Pro Tyr Pro Gly Asp Asp Ala Thr Glu
        355                 360                 365

Glu Asp Leu Glu Ser Lys Arg Arg Lys Met Glu Ser Ala Gly Ile Asp
    370                 375                 380

Ala Ala Leu Met Gly Lys Pro Asn Arg Glu Pro Arg Val Val Val Gln
385                 390                 395                 400

Thr Val Ser Glu Val Asp Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys
                405                 410                 415

Tyr Gly Gln Lys Val Val Lys Gly Asn Pro Asn Pro Arg Ser Tyr Tyr
            420                 425                 430

Lys Cys Thr Ser Thr Gly Cys Pro Val Arg Lys His Val Glu Arg Ala
        435                 440                 445

Ser His Asp Pro Lys Ser Val Ile Thr Thr Tyr Glu Gly Lys His Asn
    450                 455                 460

His Glu Val Pro Ala Ala Arg Asn Ala Thr His Glu Met Ser Ala Pro
465                 470                 475                 480

Pro Met Lys Asn Val Val His Gln Ile Asn Ser Ser Met Pro Ser Ser
                485                 490                 495

Ile Gly Gly Met Met Arg Ala Cys Glu Ala Arg Asn Phe Ser Asn Gln
            500                 505                 510

Tyr Ser Gln Ala Ala Glu Thr Asp Asn Val Ser Leu Asp Leu Gly Val
        515                 520                 525

Gly Ile Ser Pro Asn His Ser Asp Ala Thr Asn Gln Met Gln Ser Ser
    530                 535                 540

Gly Pro Asp Gln Met Gln Tyr Gln Met Gln Ser Met Ala Ser Met Tyr
545                 550                 555                 560

Gly Asn Met Arg His Pro Ser Ser Met Ala Val Pro Thr Val Gln Gly
                565                 570                 575

Asn Ser Ala Gly Arg Met Tyr Gly Ser Arg Glu Glu Lys Gly Asn Glu
            580                 585                 590
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Gly Phe Thr Phe Arg Ala Thr Pro Met Asp His Ser Ala Asn Leu Cys
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Tyr Ser Gly Ala Gly Asn Leu Val Met Gly Pro
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<210> 13
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<212> PRT
<213> Ipomoea batatas

<400> 13
Met Ala Ala Ser Ser Gly Thr Ile Asp Ala Pro Thr Ala Ser Ser Ser
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Phe Ser Phe Ser Thr Ala Ser Ser Phe Met Ser Ser Phe Thr Asp Leu
             20                  25                  30

Leu Ala Ser Asp Ala Tyr Ser Gly Gly Ser Val Ser Arg Gly Leu Gly
         35                  40                  45

Asp Arg Ile Ala Glu Arg Thr Gly Ser Gly Val Pro Lys Phe Lys Ser
     50                  55                  60

Leu Pro Pro Pro Ser Leu Pro Leu Ser Ser Pro Ala Val Ser Pro Ser
 65                  70                  75                  80

Ser Tyr Phe Ala Phe Pro Pro Gly Leu Ser Pro Ser Glu Leu Leu Asp
                 85                  90                  95

Ser Pro Val Leu Leu Ser Ser Ser Asn Ile Leu Pro Ser Pro Thr Thr
            100                 105                 110

Gly Thr Phe Pro Ala Gln Thr Phe Asn Trp Lys Asn Asp Ser Asn Ala
        115                 120                 125

Ser Gln Glu Asp Val Lys Gln Glu Glu Lys Gly Tyr Pro Asp Phe Ser
    130                 135                 140

Phe Gln Thr Asn Ser Ala Ser Met Thr Leu Asn Tyr Glu Asp Ser Lys
145                 150                 155                 160

Arg Lys Asp Glu Leu Asn Ser Leu Gln Ser Leu Pro Pro Val Thr Thr
                165                 170                 175

Ser Thr Gln Met Ser Ser Gln Asn Asn Gly Gly Ser Tyr Ser Glu Tyr
            180                 185                 190

Asn Asn Gln Cys Cys Pro Pro Ser Gln Thr Leu Arg Glu Gln Arg Arg
        195                 200                 205

Ser Asp Asp Gly Tyr Asn Trp Arg Lys Tyr Gly Gln Lys Gln Val Lys
    210                 215                 220

Gly Ser Glu Asn Pro Arg Ser Tyr Tyr Lys Cys Thr His Pro Asn Cys
225                 230                 235                 240
```

```
Pro Thr Lys Lys Lys Val Glu Arg Ala Leu Asp Gly Gln Ile Thr Glu
                245                 250                 255

Ile Val Tyr Lys Gly Ala His Asn His Pro Lys Pro Gln Ser Thr Arg
            260                 265                 270

Arg Ser Ser Ser Ser Thr Ala Ser Ser Ala Ser Thr Leu Ala Ala Gln
        275                 280                 285

Ser Tyr Asn Ala Pro Ala Ser Asp Val Pro Asp Gln Ser Tyr Trp Ser
    290                 295                 300

Asn Gly Asn Gly Gln Met Asp Ser Val Ala Thr Pro Glu Asn Ser Ser
305                 310                 315                 320

Ile Ser Val Gly Asp Asp Glu Phe Glu Gln Ser Ser Gln Lys Arg Glu
                325                 330                 335

Ser Gly Gly Asp Glu Phe Asp Glu Asp Glu Pro Asp Ala Lys Arg Trp
            340                 345                 350

Lys Val Glu Asn Glu Ser Glu Gly Val Ser Ala Gln Gly Ser Arg Thr
        355                 360                 365

Val Arg Glu Pro Arg Val Val Val Gln Thr Thr Ser Asp Ile Asp Ile
    370                 375                 380

Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Val Val Lys
385                 390                 395                 400

Gly Asn Pro Asn Pro Arg Ser Tyr Tyr Lys Cys Thr Ser Gln Gly Cys
                405                 410                 415

Pro Val Arg Lys His Val Glu Arg Ala Ser His Asp Ile Arg Ser Val
            420                 425                 430

Ile Thr Thr Tyr Glu Gly Lys His Asn His Asp Val Pro Ala Ala Arg
        435                 440                 445

Gly Ser Gly Ser His Gly Leu Asn Arg Gly Ala Asn Pro Asn Asn Asn
    450                 455                 460

Ala Ala Met Ala Met Ala Ile Arg Pro Ser Thr Met Ser Leu Gln Ser
465                 470                 475                 480

Asn Tyr Pro Ile Pro Ile Pro Ser Thr Arg Pro Met Gln Gln Gly Glu
                485                 490                 495

Gly Gln Ala Pro Tyr Glu Met Leu Gln Gly Ser Gly Gly Phe Gly Tyr
            500                 505                 510

Ser Gly Phe Gly Asn Pro Met Asn Ala Tyr Ala Asn Gln Ile Gln Asp
        515                 520                 525

Asn Ala Phe Ser Arg Ala Lys Glu Glu Pro Arg Asp Asp Leu Phe Leu
    530                 535                 540

Asp Thr Leu Leu Ala
545
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic oligonucleotide

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